

# Exhibit 80

## Boeing changes course as it looks to aggressively grow its licensing business

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Boeing may have a world famous brand and have been a leader in the aerospace industry for almost 100 years, but it is not as well known when it comes to IP and the monetisation of its large portfolio. But having re-thought its IP strategy several years ago the company is now actively looking to expand its patent and technology **licensing** efforts, which historically have only focused on Boeing's supply chain. The aim is to more widely license a collection of powerful assets, which in the US numbers almost 10,000 granted patents and applications (placing the company 53rd among US patent owners, according to **data supplied by MDB Capital and published in the latest issue of IAM**), to companies outside of Boeing's aerospace core. Although it won't give a specific forecast, Boeing claims that the size of the **licensing** opportunity available to it stretches into the hundreds of millions of dollars.

Leading this charge is **Peter Hoffman**, a 31-year Boeing veteran who has spent the bulk of his career in engineering but who, since 2012, has been vice president of intellectual property management. The *IAM blog* caught up with Hoffman to hear about the **licensing** shake-up that has been taking place at the company.

*Give us an introduction to the patent and **licensing** group at Boeing and explain how that fits within the larger IP group.*

Maybe the best place to start is in the larger IP group or Intellectual Property Management (IPM). This was cored up within our corporate office in a larger group called operations, engineering and technology about five years ago. It's part of an overall effort that the company has to operate as a single company, so think of engineering, operations and technology as the glue that holds together the broader functions across the whole enterprise. We still have the two large businesses of course – the commercial and the defence business – but engineering, operations and technology, led by my boss Dr John Tracy, is where all the functional homes reside for, as the name suggests, our engineering, operations and technology side of the house. So, with that we consolidated the IP management team – traditional patent portfolio management is one element; our second team is integration, protection and planning (that's really our strategy guys and policy folks); and then the third element is our **licensing** business. Traditionally that **licensing** business has been heavily focused on **licensing** our data and know-how to our supply chain. The new group with patent and technology **licensing** is trying to go outside of that norm to identify potential markets outside of aerospace that could utilise our technology and know-how.

*Could you talk us through the thought processes behind why you've taken the decisions you've taken and why you're looking to license outside of your supply chain.*

Our core strategy at corporate level around IP is to capture, protect and enable our IP – so capture our ideas, protect our hard-earned knowledge and enable successful business results. With that enable piece, when we're able to generate cash through redeployment of our IP and return that cash to the businesses that's a great thing. I look at it as untapped potential – as long as we re-deploy that IP in a way that doesn't negatively impact the business and generate some cash from it, ultimately that's going to bring more value to the enterprise. I would say that traditionally we were heavily focused our supply chain, in particular **licensing** that supply chain in the after-market to generate cash. Traditionally the commercial side of our business has been the largest generator of cash. We do generate cash on our defence business but historically it has not been as heavy a cash generator as our commercial business.

The reason we took the decision to step into the patent and technology **licensing** side is that we felt it was an area where we could bring more value to the company. We understood that there were challenges with that – if you look at our history of sharing our IP we actually have a pretty robust history of doing technology transfer and technology collaboration globally. I'm not sure if you're familiar with the whole off-set and counter trade world in the defence business, but when we sell our products internationally we're required to bring value to the country that's buying those products and for many of the years that I was involved in that world, we were pushing technology out in order to satisfy these off-set obligations.

Very similar tools and skills are required in terms of identifying what we have that others might be interested in. That being said, it's a very difficult task to come up with an attractive enough technology package that a company is willing to pay to license. So the real challenge in front of us is finding the right matches, identifying technologies we have that will help outside parties to accelerate where they want to get to and ultimately spend less money getting there and then close the deal.

*How much have you been influenced by the world around you and the example set by other large public companies, not necessarily in your sector, starting to realise that they could make more use of their IP?*

We were aware of that and as we were putting together the business case for launching this new effort we did our fair share of benchmarking against the key industry players – IBM and others – that are generating a lot of value from their IP. I think there's a little bit of a difference in that when we look at our IP, our primary mission is to create and innovate to support our core business. Then if we have the opportunity to further leverage that IP to generate value that would be our secondary objective. But when you start thinking about it, it can be as simple as being careful about the way you write patent applications, making sure that if the idea is applicable to a broader field than just aerospace that you don't tie yourself down and start the patent application with words around, "for an aircraft doing such and such". That leaves you open to leverage that IP across a broader spectrum.

*A lot of companies approach this through simple patent **licensing**. Yours is more of a combination of patent and technology **licensing**; why do both?*

We feel that the patent actually complements the core technology that we transfer. Since the approach that we're taking is to go and first identify a technology area that we think would help a particular company in a particular sector, if we have patents that back that up that's all the better. Not only can we offer them the technology and know-how, we can also offer them a certain level of protection to practise in that area. We feel that the carrot that's going to attract a potential licensee is the ability to work with our engineers and technical community to quickly come up to speed on a certain technology area that we're already well up the curve on. Then the patent backdrop is really a reinforcement - firstly it demonstrates our level of expertise in an area if we hold patents in it and, secondly, it gives them a sense of protection so that after they make the effort to bring on this new technology, their competition will have to find other ways to get there.

*Which sectors are you particularly interested in or do you think might be particularly relevant to the technology and patents you do have?*

As I think of the analysis that's been done so far, it tends to fall into more high-tech areas. I would say that the transportation industry as well – so taking technologies that are perhaps emerging in other forms of transportation be it automotive or other vehicles. Unmanned air vehicles – the explosion of that technology and the commercial application of it - is a ripe area for us.

*You're obviously at the cutting edge of technology that may not be used for years, so how easy is it to see other uses? Unmanned flight (drones) is a good example of something that 10 years ago people might not have thought would be really big business.*

There are things that we have developed in unmanned flight in terms of autonomy and unmanned vehicles flying together in swarms, those type of things, that you really don't see yet in the commercial applications. Now, we have to be careful because we're in the unmanned flight business also, but we do tend to focus more on the defence side of the equation so, in general, commercial applications is an area where we could find some good opportunities.

Another good example would be 3D printing or additive manufacturing. We have been working in that area and applying it to our products since the late '80s, so it has moved from a sort of novelty, one-off – rapid prototyping as it was called in the early days – to now being something that we're using in a production setting for low-rate production. Initially, we used it to make environmental control system ducting on our fighter aircraft. With the development of fire, smoke and toxicity qualified materials we've now moved into our commercial structures. So you can imagine if we've got 20/25 years of experience in that area, we have developed a lot of tricks of the trade that we've held close as we've developed them for our own products, which we feel that we might be able to license out into either the folks making the machine tools that do that additive manufacturing or other companies that are using existing equipment.

*How has progress been so far? What have you found in the **licensing** market which a lot of people tell us is a very tough environment?*

Well, we are in the early stages. We only officially got the greenlight and kicked this off last October so we are still in that build-up stage in terms of building the team and bringing the right kind of expertise in. That being said, we are making some good connections, we're identifying some good opportunities. Is the cash rolling in as quickly as we would all hope? Well, of course not; but we do have some milestones we've set out over the next 12 to 18 months to make sure we're progressing. So I think we have a bright future; it's just a question of getting out there and identifying the first few deals that will get the juices flowing.

*How will you measure your success? Is it more than dollars and cents on the bottom line?*

Well, that will be the key metric because there's an expense to standing up a team focused on this so there is a need to bring in revenue to, at a minimum, cover their costs; but hopefully we can make some profit beyond that. But I think the other intangibles - the image that it creates, the brand-building that it creates in terms of Boeing being a high-technology company - are also very important. We're coming up on our 100<sup>th</sup> anniversary next year and sometimes people equate a 100-year-old company with old and stodgy. When you think about the type of innovation and products we've produced and how we've had to basically re-invent ourselves on an ongoing basis for the past century, at times we can become over-shadowed by some of the newer

entrants to the industry that maybe come off a little bit sexier because they appear fast-moving and dynamic. So that's really a side-effect that will occur – that going out and offering up our technologies will further expose the depth of know-how and innovation we have within the company.

*When you look at the market you're moving into, there's a lot of uncertainty around it with patent reform and court decisions so that people may not know what something is worth, be it a patent or piece of technology backed by IP. Have you been affected by this?*

We do work closely with our Washington operations group and are tracking what's going on from a legislative perspective around patents. We're very supportive of the patent reform efforts and nothing that's been proposed gives us pause. If we were in a different business around patents, if we were out building a business, singly focused on the enforcement of patents it would be a different story. But at its core we look at our patent portfolio as a reflection of our technology capabilities and we do believe that a patent unto itself has limited value but when appropriately packaged with tech support can have great value.

*Would you consider selling any of your patents perhaps to another business that would then go out and license them?*

We have a history of selling patents – we don't do it a lot but as part of our ongoing maintenance of our patent portfolio we do an annual pruning of patents. If there are patents we feel are no longer bringing value to us – perhaps they were in an area that we were investing in at some point but are no longer investing in and there's an organisation out there that feels they can get some value out of them – we have sold patents in the past. Usually it's someone approaching us and identifying an area where they have an interest rather than us going out and looking for buyers.

*If we were to do this call in three years what would you hope to say about the progress you'd made?*

My hope would be that we've realised the potential we thought was there to make those links between the tremendous technology investment that we've done as a company over the years and identified partners, licensees that are reaping benefits from our technology. And, of course, that we have met our financial goals to bring in additional revenue for the company through this new and different way.

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